



## Safety Data Sheet according to Regulation (EC) No1907/2006

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LOCTITE A-2460 50ML KT #5 PT A

SDS No. : 438999  
V002.2

Revision: 29.09.2014  
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

LOCTITE A-2460 50ML KT #5 PT A

#### Contains:

Methyl methacrylate

Methacrylic acid

Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Acrylic Adhesive

#### 1.3. Details of the supplier of the safety data sheet

Henkel Limited

2 Bishop Square Business Park

AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933

Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (CLP):


Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye damage	Category 1
H318 Causes serious eye damage.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H335 May cause respiratory irritation.	
Target organ: respiratory tract irritation	
Chronic hazards to the aquatic environment	Category 3
H412 Harmful to aquatic life with long lasting effects.	

**Classification (DPD):**

- F - Highly flammable
- R11 Highly flammable.
- Xi - Irritant
- R37/38 Irritating to respiratory system and skin.
- R41 Risk of serious damage to eyes.
- Sensitizing
- R43 May cause sensitisation by skin contact.
- Dangerous for the environment
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

**Label elements (CLP):**

<b>Hazard pictogram:</b>	
<b>Signal word:</b>	Danger
<b>Hazard statement:</b>	H225 Highly flammable liquid and vapor. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. H412 Harmful to aquatic life with long lasting effects.
<b>Precautionary statement:</b> <b>Prevention</b>	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 Avoid breathing vapours. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection.
<b>Precautionary statement:</b> <b>Response</b>	P302+P352 IF ON SKIN: Wash with plenty of soap and water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to remove. Continue rinsing. P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

**Label elements (DPD):**

F - Highly flammable

Xi - Irritant



**Risk phrases:**

- R11 Highly flammable.
- R37/38 Irritating to respiratory system and skin.
- R41 Risk of serious damage to eyes.
- R43 May cause sensitisation by skin contact.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

- S16 Keep away from sources of ignition - No smoking.
- S24/25 Avoid contact with skin and eyes.
- S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S37/39 Wear suitable gloves and eye/face protection.
- S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

**Additional labeling:**

- Contains epoxy constituents. See information supplied by the manufacturer.
- For use in industrial installations only.

**Contains:**

- Methyl methacrylate,
- Methacrylic acid,
- Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight  $\leq 700$ )

**2.3. Other hazards**

- Non corrosive to skin in accordance with the in vitro test method, B40 skin corrosion - Human skin model assay, equivalent to test method OECD 431 or based on analogy to similar products tested.

**SECTION 3: Composition/information on ingredients**

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Methyl methacrylate 80-62-6	201-297-1 01-2119452498-28	>= 40- < 60 %	Flammable liquids 2 H225 Specific target organ toxicity - single exposure 3 H335 Skin irritation 2 H315 Skin sensitizer 1 H317
Methacrylic acid 79-41-4	201-204-4 01-2119463884-26	>= 5- < 10 %	Acute toxicity 4; Oral H302 Acute toxicity 3; Dermal H311 Acute toxicity 4; Inhalation H332 Skin corrosion/irritation 1A H314
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	500-033-5 500-033-5 01-2119456619-26	>= 5- < 10 %	Skin irritation 2 H315 Skin sensitizer 1 H317 Serious eye irritation 2 H319 Chronic hazards to the aquatic environment 2 H411
Cumene hydroperoxide 80-15-9	201-254-7	>= 0,1- < 0,9 %	Acute toxicity 4; Dermal H312 Specific target organ toxicity - repeated exposure 2 H373 Acute toxicity 4; Oral H302 Organic peroxides E H242 Acute toxicity 3; Inhalation H331 Skin corrosion 1B H314 Chronic hazards to the aquatic environment 2 H411
Butyl hydroxytoluene 128-37-0	204-881-4 01-2119480433-40 01-2119555270-46 01-2119565113-46	>= 0,1- < 0,25 %	Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
Trichloroethane-1,1,2 79-00-5	201-166-9	>= 0,1- < 0,3 %	Carcinogenicity 2 H351 Acute toxicity 4; Dermal H312 Acute toxicity 4; Oral H302 Acute toxicity 4; Inhalation H332

**For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.**

**Declaration of ingredients according to DPD (EC) No 1999/45:**

<b>Hazardous components CAS-No.</b>	<b>EC Number REACH-Reg No.</b>	<b>content</b>	<b>Classification</b>
Methyl methacrylate 80-62-6	201-297-1 01-2119452498-28	>= 40 - < 60 %	Xi - Irritant; R37/38 R43 F - Highly flammable; R11
Methacrylic acid 79-41-4	201-204-4 01-2119463884-26	>= 5 - < 10 %	C - Corrosive; R35 Xn - Harmful; R20/21/22
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	500-033-5 500-033-5 01-2119456619-26	>= 5 - < 10 %	R43 Xi - Irritant; R36/38 N - Dangerous for the environment; R51/53
Cumene hydroperoxide 80-15-9	201-254-7	>= 0,1 - < 0,9 %	T - Toxic; R23 Xn - Harmful; R21/22, R48/20/22 C - Corrosive; R34 O - Oxidizing; R7 N - Dangerous for the environment; R51/53
Butyl hydroxytoluene 128-37-0	204-881-4 01-2119480433-40 01-2119555270-46 01-2119565113-46	>= 0,1 - < 0,25 %	N - Dangerous for the environment; R50/53

**For full text of the R-Phrases indicated by codes see section 16 'Other Information'.  
Substances without classification may have community workplace exposure limits available.**

**SECTION 4: First aid measures****4.1. Description of first aid measures****Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

**Skin contact:**

Rinse with running water and soap.  
Obtain medical attention if irritation persists.

**Eye contact:**

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

**Ingestion:**

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

**4.2. Most important symptoms and effects, both acute and delayed**

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

**4.3. Indication of any immediate medical attention and special treatment needed**

See section: Description of first aid measures

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media:**

Carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**

None known

**5.2. Special hazards arising from the substance or mixture**

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

**Additional information:**

In case of fire, keep containers cool with water spray.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid skin and eye contact.  
Remove sources of ignition.

**6.2. Environmental precautions**

Do not let product enter drains.

**6.3. Methods and material for containment and cleaning up**

For small spills wipe up with paper towel and place in container for disposal.  
For large spills absorb onto inert absorbent material and place in sealed container for disposal.

**6.4. Reference to other sections**

See advice in section 8

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Use only in well-ventilated areas.  
Avoid skin and eye contact.  
Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.  
Keep away from sources of ignition - no smoking.

Hygiene measures:

Good industrial hygiene practices should be observed.  
Wash hands before work breaks and after finishing work.  
Do not eat, drink or smoke while working.

**7.2. Conditions for safe storage, including any incompatibilities**

Ensure good ventilation/extraction.  
Keep away from sources of ignition.  
Store in a cool, well-ventilated place.

**7.3. Specific end use(s)**

Acrylic Adhesive

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**Valid for  
Great Britain

Ingredient	ppm	mg/m <sup>3</sup>	Type	Category	Remarks
METHYL METHACRYLATE 80-62-6	100	416	Short Term Exposure Limit (STEL):		EH40 WEL
METHYL METHACRYLATE 80-62-6	50	208	Time Weighted Average (TWA):		EH40 WEL
METHACRYLIC ACID 79-41-4	40	143	Short Term Exposure Limit (STEL):		EH40 WEL
METHACRYLIC ACID 79-41-4	20	72	Time Weighted Average (TWA):		EH40 WEL
2,6-DI-TERT-BUTYL-P-CRESOL 128-37-0		10	Time Weighted Average (TWA):		EH40 WEL

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Methyl methacrylate 80-62-6	aqua (freshwater)					0,94 mg/L	
Methyl methacrylate 80-62-6	aqua (marine water)					0,094 mg/L	
Methyl methacrylate 80-62-6	aqua (intermittent releases)					0,94 mg/L	
Methyl methacrylate 80-62-6	STP					10 mg/L	
Methyl methacrylate 80-62-6	sediment (freshwater)					5,74 mg/kg	
Methyl methacrylate 80-62-6	soil					1,47 mg/kg	
Methacrylic acid 79-41-4	aqua (freshwater)					0,82 mg/L	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (freshwater)					0,006 mg/L	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (marine water)					0,0006 mg/L	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	aqua (intermittent releases)					0,018 mg/L	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	STP					10 mg/L	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (freshwater)					0,996 mg/kg	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sediment (marine water)					0,0996 mg/kg	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	soil					0,196 mg/kg	
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	oral					11 mg/kg food	
2,6-Di-tert-butyl-p-cresol 128-37-0	soil					1,04 mg/kg	
2,6-Di-tert-butyl-p-cresol 128-37-0	STP					100 mg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	sediment (freshwater)					1,29 mg/kg	
2,6-Di-tert-butyl-p-cresol 128-37-0	oral					16,7 mg/kg	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (marine water)					0,4 µg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (intermittent releases)					4 µg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (freshwater)					4 µg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (freshwater)		0,000199 mg/l				



**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Methyl methacrylate 80-62-6	worker	Dermal	Acute/short term exposure - local effects		1,5 mg/cm <sup>2</sup>	
Methyl methacrylate 80-62-6	worker	Dermal	Long term exposure - systemic effects		13,67 mg/kg bw/day	
Methyl methacrylate 80-62-6	worker	inhalation	Long term exposure - systemic effects		210 mg/m <sup>3</sup>	
Methyl methacrylate 80-62-6	worker	Dermal	Long term exposure - local effects		1,5 mg/cm <sup>2</sup>	
Methyl methacrylate 80-62-6	worker	inhalation	Long term exposure - local effects		210 mg/m <sup>3</sup>	
Methyl methacrylate 80-62-6	general population	Dermal	Acute/short term exposure - local effects		1,5 mg/cm <sup>2</sup>	
Methyl methacrylate 80-62-6	general population	Dermal	Long term exposure - systemic effects		8,2 mg/kg bw/day	
Methyl methacrylate 80-62-6	general population	inhalation	Long term exposure - systemic effects		74,3 mg/m <sup>3</sup>	
Methyl methacrylate 80-62-6	general population	Dermal	Long term exposure - local effects		1,5 mg/cm <sup>2</sup>	
Methyl methacrylate 80-62-6	general population	inhalation	Long term exposure - local effects		105 mg/m <sup>3</sup>	
Methacrylic acid 79-41-4	worker	inhalation	Long term exposure - local effects		88 mg/m <sup>3</sup>	
Methacrylic acid 79-41-4	worker	inhalation	Long term exposure - systemic effects		29,6 mg/m <sup>3</sup>	
Methacrylic acid 79-41-4	worker	Dermal	Long term exposure - systemic effects		4,25 mg/kg bw/day	
Methacrylic acid 79-41-4	general population	inhalation	Long term exposure - local effects		6,55 mg/m <sup>3</sup>	
Methacrylic acid 79-41-4	general population	inhalation	Long term exposure - systemic effects		6,3 mg/m <sup>3</sup>	
Methacrylic acid 79-41-4	general population	Dermal	Long term exposure - systemic effects		2,55 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	Dermal	Acute/short term exposure - systemic effects		8,33 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	inhalation	Acute/short term exposure - systemic effects		12,25 mg/m <sup>3</sup>	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	Dermal	Long term exposure - systemic effects		8,33 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	worker	inhalation	Long term exposure - systemic effects		12,25 mg/m <sup>3</sup>	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	Dermal	Acute/short term exposure - systemic effects		3,571 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	Dermal	Long term exposure - systemic effects		3,571 mg/kg bw/day	

25068-38-6						
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	inhalation	Acute/short term exposure - systemic effects		0,75 mg/m <sup>3</sup>	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	inhalation	Long term exposure - systemic effects		0,75 mg/m <sup>3</sup>	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	oral	Acute/short term exposure - systemic effects		0,75 mg/kg bw/day	
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	general population	oral	Long term exposure - systemic effects		0,75 mg/kg bw/day	
2,6-Di-tert-butyl-p-cresol 128-37-0	general population	inhalation	Long term exposure - systemic effects		1,74 mg/m <sup>3</sup>	
2,6-Di-tert-butyl-p-cresol 128-37-0	worker	Dermal	Long term exposure - systemic effects		8,3 mg/kg bw/day	
2,6-Di-tert-butyl-p-cresol 128-37-0	general population	Dermal	Long term exposure - systemic effects		5 mg/kg bw/day	
2,6-Di-tert-butyl-p-cresol 128-37-0	worker	inhalation	Long term exposure - systemic effects		5,8 mg/m <sup>3</sup>	

**Biological Exposure Indices:**

None

**8.2. Exposure controls:****Respiratory protection:**

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

**Hand protection:**

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to &gt; 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; &gt;= 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to &gt; 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; &gt;= 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

**Eye protection:**

Wear protective glasses.

**Skin protection:**

Wear suitable protective clothing.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance

liquid

liquid

yellow

Odor

characteristic

Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	11,50 °C (52.7 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (50 °C (122 °F))	< 700 mbar
Density ( )	1,0000 g/cm <sup>3</sup>
Bulk density	No data available / Not applicable
Viscosity (Brookfield; Instrument: RVT; 25 °C (77 °F); speed of rotation: 10 min <sup>-1</sup> ; Spindle No: 6)	17 - 35 pa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Insoluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

## 9.2. Other information

No data available / Not applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with strong oxidants.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

### 10.4. Conditions to avoid

Heat, flames, sparks and other sources of ignition.

### 10.5. Incompatible materials

See section reactivity

### 10.6. Hazardous decomposition products

carbon oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### STOT-single exposure:

May cause respiratory irritation.

#### Oral toxicity:

May cause irritation to the digestive tract.

**Skin irritation:**

Causes skin irritation.

Non corrosive to skin in accordance with the in vitro test method, B40 skin corrosion - Human skin model assay, equivalent to test method OECD 431 or based on analogy to similar products tested.

**Eye irritation:**

Causes serious eye damage.

**Sensitizing:**

May cause an allergic skin reaction.

**Acute oral toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Methacrylic acid 79-41-4	LD50	1.320 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	LD50	> 2.000 mg/kg	oral		rat	
Cumene hydroperoxide 80-15-9	LD50	550 mg/kg	oral		rat	
Butyl hydroxytoluene 128-37-0	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

**Acute inhalative toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Methacrylic acid 79-41-4	LC50	4,7 mg/l	inhalation	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

**Acute dermal toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Methacrylic acid 79-41-4	Acute toxicity estimate (ATE)	500 mg/kg	dermal			Expert judgement
Methacrylic acid 79-41-4	LD50	500 - 1.000 mg/kg			rabbit	Dermal Toxicity Screening
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	LD50	23.000 mg/kg	dermal		rabbit	

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Methacrylic acid 79-41-4	Category 1A (corrosive)	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Cumene hydroperoxide 80-15-9	corrosive		rabbit	Draize Test

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
Methyl methacrylate 80-62-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Methacrylic acid 79-41-4	not sensitising	Buehler test	guinea pig	Buehler test
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Methyl methacrylate 80-62-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
Reaction product: bisphenol-A- (epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	negative	bacterial reverse mutation assay (e.g Ames test)			OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	positive	bacterial reverse mutation assay (e.g Ames test)	without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Cumene hydroperoxide 80-15-9	negative	dermal		mouse	

**Repeated dose toxicity**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Methyl methacrylate 80-62-6	LOAEL=2000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study
Methyl methacrylate 80-62-6	NOAEL=1000 ppm	inhalation	14 weeks 6 hrs/day, 5 days/wk	mouse	Dose Range Finding Study
Cumene hydroperoxide 80-15-9		inhalation: aerosol	6 h/d 5 d/w	rat	

**SECTION 12: Ecological information****General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**12.1. Toxicity****Ecotoxicity:**

Harmful to aquatic life with long lasting effects.

Do not empty into drains / surface water / ground water.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Methyl methacrylate 80-62-6	LC50	350 mg/l	Fish		Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Methyl methacrylate 80-62-6	EC50	69 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methyl methacrylate 80-62-6	EC50	170 mg/l	Algae	4 d	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	100 mg/l	Algae	4 d	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methacrylic acid 79-41-4	LC50	> 100 - 180 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Methacrylic acid 79-41-4	EC50	> 130 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Methacrylic acid 79-41-4	EC50	> 8,2 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC10	8,2 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
Reaction product: bisphenol- A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	LC50	1,750000 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Reaction product: bisphenol- A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	NOEC	0,3 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Cumene hydroperoxide 80-15-9	LC50	3,9 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Cumene hydroperoxide 80-15-9	EC50	18 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Cumene hydroperoxide 80-15-9	ErC50	3,1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Butyl hydroxytoluene 128-37-0	EC50	0,48 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butyl hydroxytoluene 128-37-0	NOEC	0,316 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

**12.2. Persistence and degradability****Persistence and Biodegradability:**

The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
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Methyl methacrylate 80-62-6	readily biodegradable	aerobic	95 %	EU Method C.4-B (Determination of the "Ready" Biodegradability Modified OECD Screening Test)
Methacrylic acid 79-41-4	readily biodegradable	aerobic	86 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Cumene hydroperoxide 80-15-9		no data	0 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Butyl hydroxytoluene 128-37-0		aerobic	4,5 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

**12.3. Bioaccumulative potential / 12.4. Mobility in soil****Mobility:**

Cured adhesives are immobile.

**Bioaccumulative potential:**

No data available.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Methyl methacrylate 80-62-6	1,38					
Methacrylic acid 79-41-4	0,93					
Cumene hydroperoxide 80-15-9		9,1		calculation		OECD Guideline 305 (Bioconcentration: Flow- through Fish Test)
Cumene hydroperoxide 80-15-9	2,16					
Butyl hydroxytoluene 128-37-0	5,1					

**12.5. Results of PBT and vPvB assessment**

Hazardous components CAS-No.	PBT/vPvB
Methyl methacrylate 80-62-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Methacrylic acid 79-41-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight <= 700) 25068-38-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butyl hydroxytoluene 128-37-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

**12.6. Other adverse effects**

No data available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

**Product disposal:**

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

**Disposal of uncleaned packages:**

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

**Waste code**

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

**SECTION 14: Transport information****14.1. UN number**

ADR	1133
RID	1133
ADNR	1133
IMDG	1133
IATA	1133

**14.2. UN proper shipping name**

ADR	ADHESIVES
RID	ADHESIVES
ADNR	ADHESIVES
IMDG	ADHESIVES
IATA	Adhesives

**14.3. Transport hazard class(es)**

ADR	3
RID	3
ADNR	3
IMDG	3
IATA	3

**14.4. Packaging group**

ADR	II
RID	II
ADNR	II
IMDG	II
IATA	II

**14.5. Environmental hazards**

ADR	not applicable
RID	not applicable
ADNR	not applicable
IMDG	not applicable
IATA	not applicable

**14.6. Special precautions for user**

ADR	Special provision 640D
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	Tunnelcode: (D/E)
RID	Special provision 640D
ADNR	Special provision 640D
IMDG	not applicable
IATA	not applicable

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**VOC content 50,5 %  
(1999/13/EC)**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- R11 Highly flammable.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R21/22 Harmful in contact with skin and if swallowed.
- R23 Toxic by inhalation.
- R34 Causes burns.
- R35 Causes severe burns.
- R36/38 Irritating to eyes and skin.
- R37/38 Irritating to respiratory system and skin.
- R43 May cause sensitisation by skin contact.
- R48/20/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R7 May cause fire.
- H225 Highly flammable liquid and vapor.
- H242 Heating may cause a fire.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

**Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.



## Safety Data Sheet according to Regulation (EC) No1907/2006

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LOCTITE A-2460 50ML KT #5 PT B

SDS No. : 328965  
V003.2

Revision: 10.09.2014  
printing date: 15.12.2014

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

LOCTITE A-2460 50ML KT #5 PT B

#### Contains:

Diethyl-phenyl-propyl-dihydropyridine  
2-Ethylhex-2-enal

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:  
Adhesive

#### 1.3. Details of the supplier of the safety data sheet

Henkel Limited  
2 Bishop Square Business Park  
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933  
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (CLP):


Acute toxicity	Category 4
H302 Harmful if swallowed. Route of Exposure: Oral	
Acute toxicity	Category 4
H312 Harmful in contact with skin. Route of Exposure: Dermal	
Skin irritation	Category 2
H315 Causes skin irritation.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Chronic hazards to the aquatic environment	Category 4
H413 May cause long lasting harmful effects to aquatic life.	

**Classification (DPD):**

Xn - Harmful  
R21/22 Harmful in contact with skin and if swallowed.  
Sensitizing  
R43 May cause sensitisation by skin contact.  
Xi - Irritant  
R36/38 Irritating to eyes and skin.  
Dangerous for the environment  
R53 May cause long-term adverse effects in the aquatic environment.

**2.2. Label elements**

**Label elements (CLP):**

<b>Hazard pictogram:</b>	
<b>Signal word:</b>	Warning
<b>Hazard statement:</b>	H302+H312 Harmful if swallowed or in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H413 May cause long lasting harmful effects to aquatic life.
<b>Precautionary statement: Prevention</b>	P261 Avoid breathing mist/vapours. P280 Wear protective gloves/protective clothing.
<b>Precautionary statement: Response</b>	P302+P352 IF ON SKIN: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention.

**Label elements (DPD):**

Xn - Harmful



**Risk phrases:**

R21/22 Harmful in contact with skin and if swallowed.  
R36/38 Irritating to eyes and skin.  
R43 May cause sensitisation by skin contact.  
R53 May cause long-term adverse effects in the aquatic environment.

**Safety phrases:**

S24 Avoid contact with skin.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37 Wear suitable protective clothing and gloves.

**Contains:**

Diethyl-phenyl-propyl-dihydropyridine,  
2-Ethylhex-2-enal

**2.3. Other hazards**

None if used properly.

**SECTION 3: Composition/information on ingredients****General chemical description:**

Adhesive

**Base substances of preparation:**

Aliphatic/Aromatic hydrocarbons

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Diethyl-phenyl-propyl-dihydropyridine 34562-31-7	252-091-3	80- < 100 %	Acute toxicity 4; Oral H302 Acute toxicity 4; Dermal H312 Skin irritation 2; Dermal H315 Serious eye irritation 2 H319 Chronic hazards to the aquatic environment 4 H413
2-Ethylhex-2-enal 645-62-5	211-448-3	1- < 2,5 %	Flammable liquids 3 H226 Skin irritation 2; Dermal H315 Skin sensitizer 1; Dermal H317
Copper naphthenate 1338-02-9	215-657-0	< 0,14 %	Flammable liquids 3 H226 Acute toxicity 4; Oral H302 Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410
Butyl hydroxytoluene 128-37-0	204-881-4 01-2119480433-40 01-2119555270-46 01-2119565113-46	<= 0,1 %	Acute hazards to the aquatic environment 1 H400 Chronic hazards to the aquatic environment 1 H410

For full text of the H - statements and other abbreviations see section 16 "Other information".

Substances without classification may have community workplace exposure limits available.

**Declaration of ingredients according to DPD (EC) No 1999/45:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Diethyl-phenyl-propyl-dihydropyridine 34562-31-7	252-091-3	80 - < 100 %	Xn - Harmful; R21/22 Xi - Irritant; R36/38 R53
2-Ethylhex-2-enal 645-62-5	211-448-3	1 - < 2,5 %	Xi - Irritant; R38, R43 R52/53
Copper naphthenate 1338-02-9	215-657-0	< 0,14 %	R10 Xn - Harmful; R22 N - Dangerous for the environment; R50/53
Butyl hydroxytoluene 128-37-0	204-881-4 01-2119480433-40 01-2119555270-46 01-2119565113-46	<= 0,1 %	N - Dangerous for the environment; R50/53

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.

Substances without classification may have community workplace exposure limits available.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

Move to fresh air. If symptoms persist, seek medical advice.

**Skin contact:**

Rinse with running water and soap.  
Seek medical advice.

**Eye contact:**

Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.

**Ingestion:**

Rinse out mouth, drink 1-2 glasses of water, do not induce vomiting.  
Seek medical advice.

### 4.2. Most important symptoms and effects, both acute and delayed

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

EYE: Irritation, conjunctivitis.

### 4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**

Carbon dioxide, foam, powder

**Extinguishing media which must not be used for safety reasons:**

High pressure waterjet

### 5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) can be released.  
carbon oxides.

### 5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid skin and eye contact.

### 6.2. Environmental precautions

Do not let product enter drains.

### 6.3. Methods and material for containment and cleaning up

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Dispose of contaminated material as waste according to Section 13.

**6.4. Reference to other sections**

See advice in section 8

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Use only in well-ventilated areas.

Avoid skin and eye contact.

Prolonged or repeated skin contact should be avoided to minimise any risk of sensitisation.

See advice in section 8

## Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in a cool, well-ventilated place.

**7.3. Specific end use(s)**

Adhesive

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Occupational Exposure Limits**

Valid for

Great Britain

Ingredient	ppm	mg/m <sup>3</sup>	Type	Category	Remarks
2,6-DI-TERT-BUTYL-P-CRESOL 128-37-0		10	Time Weighted Average (TWA):		EH40 WEL

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
2,6-Di-tert-butyl-p-cresol 128-37-0	soil				1,04 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	STP					100 mg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	sediment (freshwater)				1,29 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	oral				16,7 mg/kg		
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (marine water)					0,4 µg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (intermittent releases)					4 µg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (freshwater)					4 µg/L	
2,6-Di-tert-butyl-p-cresol 128-37-0	aqua (freshwater)		0,000199 mg/l				

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2,6-Di-tert-butyl-p-cresol 128-37-0	general population	inhalation	Long term exposure - systemic effects		1,74 mg/m <sup>3</sup>	
2,6-Di-tert-butyl-p-cresol 128-37-0	worker	Dermal	Long term exposure - systemic effects		8,3 mg/kg bw/day	
2,6-Di-tert-butyl-p-cresol 128-37-0	general population	Dermal	Long term exposure - systemic effects		5 mg/kg bw/day	
2,6-Di-tert-butyl-p-cresol 128-37-0	worker	inhalation	Long term exposure - systemic effects		5,8 mg/m <sup>3</sup>	

**Biological Exposure Indices:**

None

**8.2. Exposure controls:**

## Engineering controls:

Ensure good ventilation/extraction.

## Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A

## Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to &gt; 30 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq 0.4$  mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to &gt; 480 minutes permeation time as per EN 374):

nitrile rubber (NBR;  $\geq 0.4$  mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

## Eye protection:

Wear protective glasses.

## Skin protection:

Wear suitable protective clothing.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	liquid amber
Odor	Mild
Odour threshold	No data available / Not applicable
pH	Not applicable
Initial boiling point	No data available / Not applicable
Flash point	> 93,4 °C (> 200.12 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure	No data available / Not applicable
Density	0,9700 g/cm <sup>3</sup>

( )	
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Insoluble
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	Not available.
Oxidising properties	No data available / Not applicable

## 9.2. Other information

No data available / Not applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Strong oxidizing agents.  
Reaction with strong bases  
Reaction with strong acids.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

### 10.4. Conditions to avoid

Stable under normal conditions of storage and use.

### 10.5. Incompatible materials

See section reactivity

### 10.6. Hazardous decomposition products

Oxides of carbon.  
Oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### General toxicological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

#### Oral toxicity:

Harmful if swallowed.

#### Inhalative toxicity:

May cause irritation to respiratory system.

#### Dermal toxicity:

Harmful in contact with skin.

#### Skin irritation:

Causes skin irritation.



**Eye irritation:**

Causes serious eye irritation.

**Sensitizing:**

May cause an allergic skin reaction.

**Acute oral toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-Ethylhex-2-enal 645-62-5	LD50	4.675 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
Butyl hydroxytoluene 128-37-0	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

**Acute inhalative toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
2-Ethylhex-2-enal 645-62-5	Acute toxicity estimate (ATE)	20,1 mg/l	inhalation			Expert judgement
2-Ethylhex-2-enal 645-62-5	LCLo	4 mg/l			rat	BASF Test

**Acute dermal toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Copper naphthenate 1338-02-9	LD50	> 7.940 mg/kg	dermal		rabbit	
Copper naphthenate 1338-02-9	LD50	> 5.000 mg/kg			rabbit	

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Diethyl-phenyl-propyl- dihydropyridine 34562-31-7	irritating			
2-Ethylhex-2-enal 645-62-5	irritating	20 h	rabbit	BASF Test

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Diethyl-phenyl-propyl- dihydropyridine 34562-31-7	irritating			
2-Ethylhex-2-enal 645-62-5	not irritating		rabbit	BASF Test

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
2-Ethylhex-2-enal 645-62-5	sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2-Ethylhex-2-enal 645-62-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

## SECTION 12: Ecological information

### General ecological information:

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

### 12.1. Toxicity

#### Ecotoxicity:

Do not empty into drains / surface water / ground water.  
May cause long lasting harmful effects to aquatic life.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
2-Ethylhex-2-enal 645-62-5	LC50	10 - 22 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
2-Ethylhex-2-enal 645-62-5	EC50	20 mg/l	Daphnia	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
2-Ethylhex-2-enal 645-62-5	EC50	27,7 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	
	EC10	6,6 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	
Butyl hydroxytoluene 128-37-0	EC50	0,48 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Butyl hydroxytoluene 128-37-0	NOEC	0,316 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

### 12.2. Persistence and degradability

#### Persistence and Biodegradability:

No data available for the product.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
2-Ethylhex-2-enal 645-62-5	readily biodegradable	aerobic	75 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Butyl hydroxytoluene 128-37-0		aerobic	4,5 %	OECD Guideline 301 C (Ready Biodegradability: Modified MITI Test (I))

### 12.3. Bioaccumulative potential / 12.4. Mobility in soil

#### Mobility:

Cured adhesives are immobile.

#### Bioaccumulative potential:

No data available for the product.

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
2-Ethylhex-2-enal 645-62-5	2,38				23 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
Butyl hydroxytoluene 128-37-0	5,1					

### 12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Butyl hydroxytoluene 128-37-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

#### 12.6. Other adverse effects

No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product disposal:

Dispose of in accordance with local and national regulations.

Contribution of this product to waste is very insignificant in comparison to article in which it is used

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Disposal must be made according to official regulations.

Waste code

08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

### SECTION 14: Transport information

#### 14.1. UN number

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

#### 14.2. UN proper shipping name

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

#### 14.3. Transport hazard class(es)

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

#### 14.4. Packaging group

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

#### 14.5. Environmental hazards

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

#### 14.6. Special precautions for user

Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content < 3 %  
(1999/13/EC)

### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

## SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

R10 Flammable.

R21/22 Harmful in contact with skin and if swallowed.

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R53 May cause long-term adverse effects in the aquatic environment.

H226 Flammable liquid and vapor.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

### Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.